

# Columbia River Crossing Project Update

*An I-5 bridge, transit and highway improvement project*

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**Washington State Transportation Commission**  
**March 18-19, 2009**



**Washington State**  
**Department of Transportation**

# Overview

- Background
- Preferred alternative
- Upcoming decisions
- Public involvement and next steps
- Questions and discussion



# Background

# Columbia River Crossing

A bridge, transit, and highway project aimed at improving travel efficiency and safety on I-5 for...

- Trucks
- Public transit riders
- Cars
- Bicyclists and pedestrians



# Project Partners



# Project Addresses Six Problems on I-5



- **Congestion**

Travel demand exceeds capacity



- **Freight**

Mobility through the area is impaired



- **Public transit**

Service is limited by congestion



- **Safety**

Crash rates are too high



- **Bicyclists and pedestrians**

Facilities and connections are inadequate



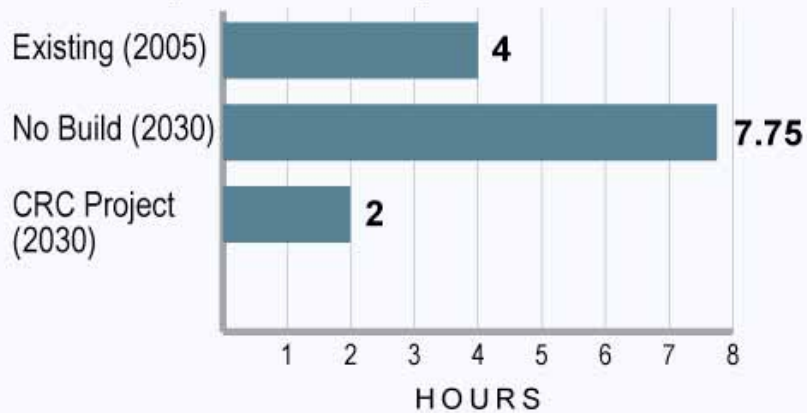
- **Earthquake safety**

Bridges don't meet current seismic standards

# Daily Traffic Congestion

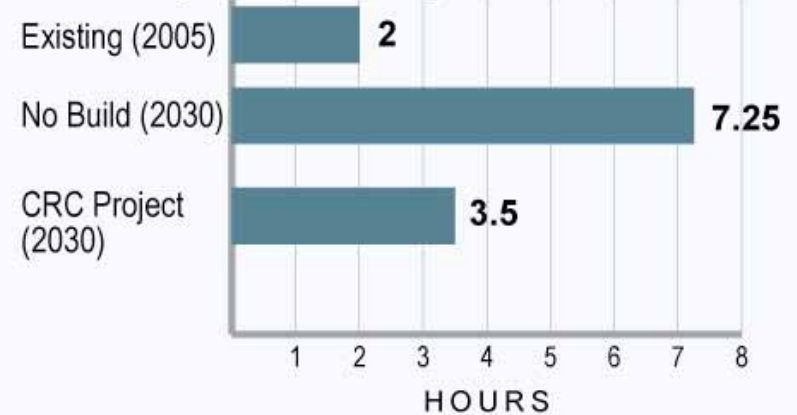
## Daily Northbound Congestion

Hours of Congestion at the I-5 Bridge

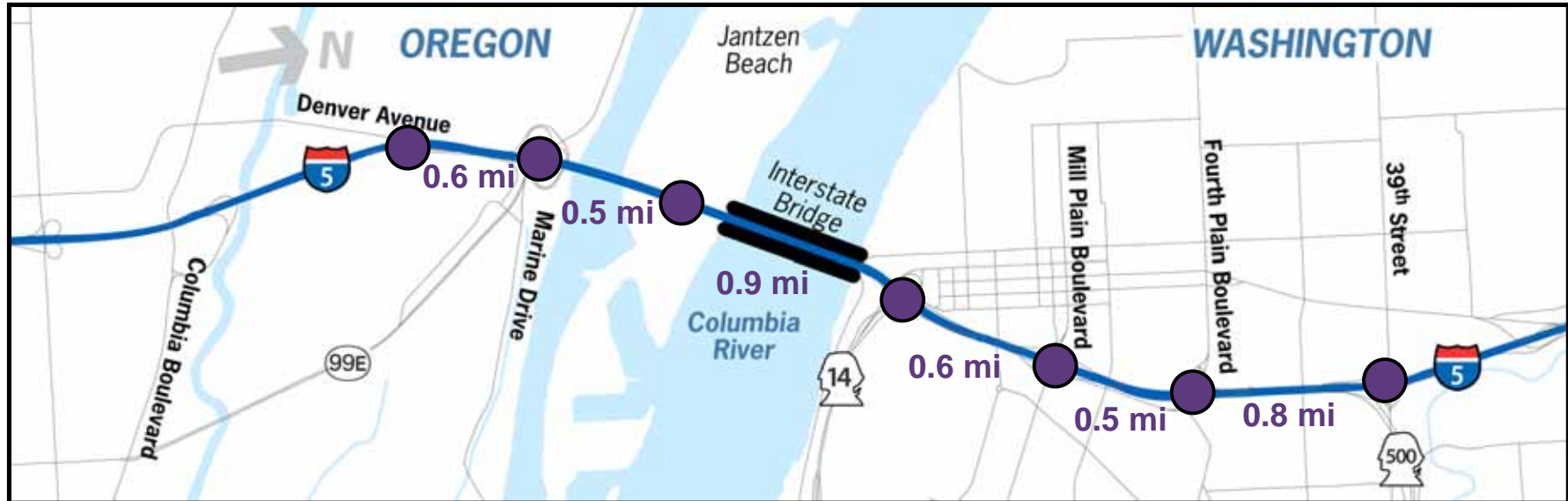


## Daily Southbound Congestion

Hours of Congestion at the I-5 Bridge



# Seven Closely Spaced Interchanges



Standard Spacing: Desirable = 2 Miles  
Minimum = 1 Mile



# Alternatives in Draft Environmental Impact Statement (EIS)

 No build

 Replacement bridge with bus rapid transit

 Replacement bridge with light rail

 Supplemental bridge with bus rapid transit

 Supplemental bridge with light rail

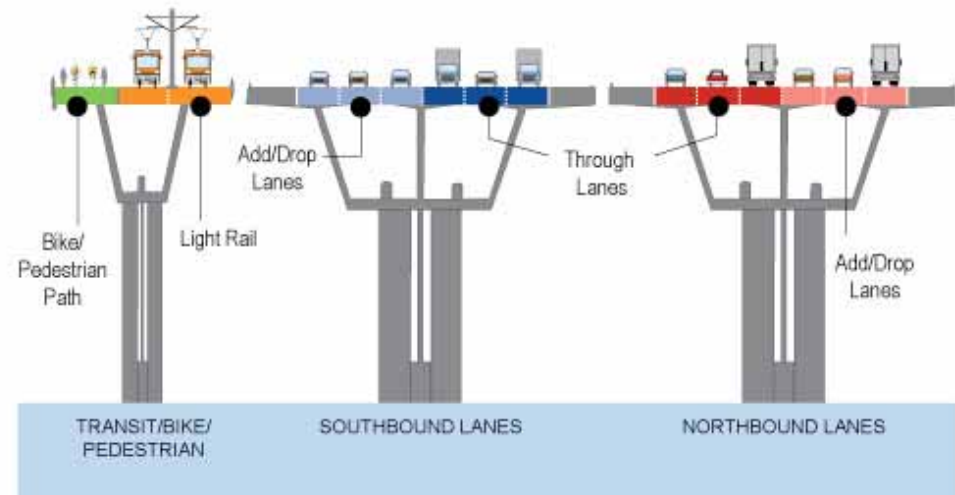


## **Preferred Alternative**

# Locally Preferred Alternative:

## Three Bridge Concept

- Replacement bridge.
- Light rail to Clark College in Vancouver.
- Alternative also includes:
  - Complete redesign of four interchanges.
  - Improvements to three interchanges.
  - Reconstruction of over 50 bridges.



**NOTE: Number of add/drop lanes to be determined.**

# Project Benefits

## Safer Travel and Improved Design

- No bridge lifts.
- Up to 75 percent fewer collisions.
- Improve connections at all interchanges.
- Meet earthquake safety standards.



## More Commuter Choices

- Extend light rail to Clark College.
- Enhance pedestrian and bike paths.
- Reduce travel times.



## Better Freight Mobility

- Relieve congestion to keep goods moving.
- Improve access to ports and highways.

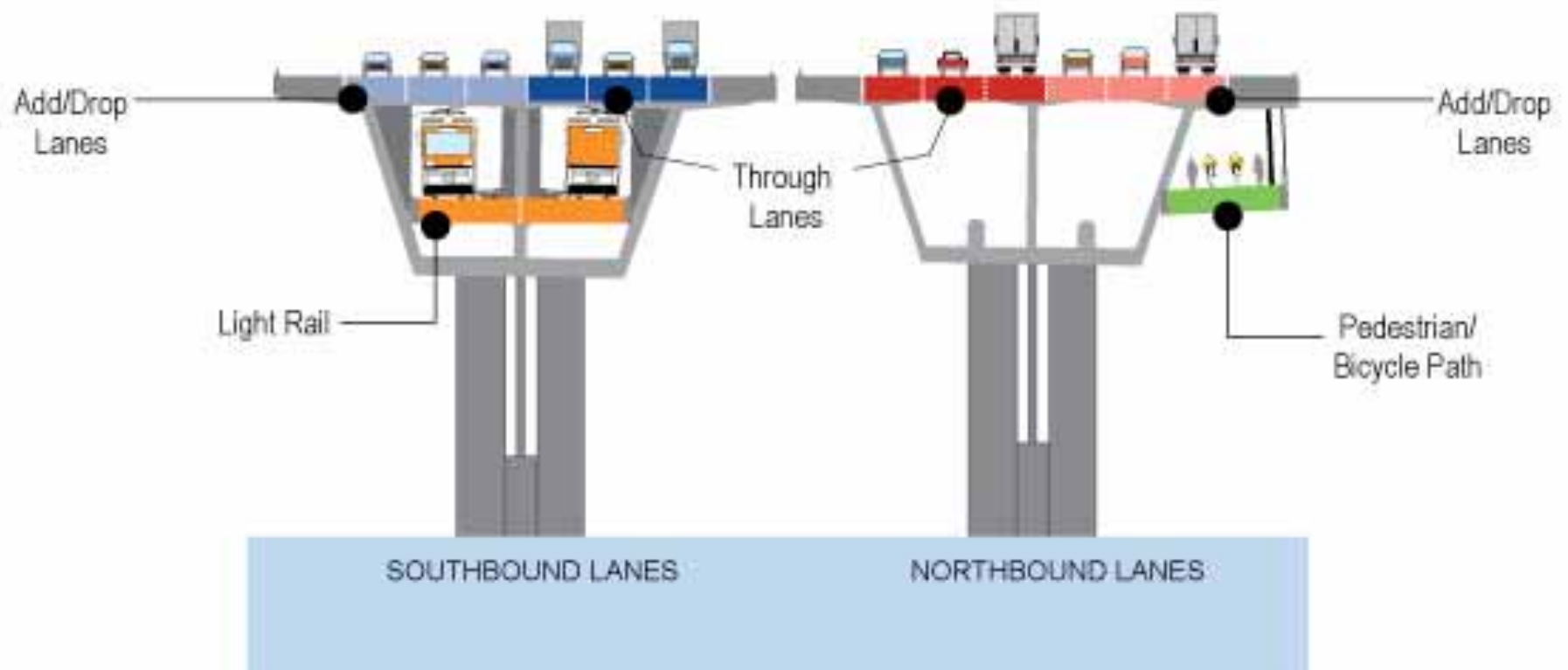


# Replacement Bridge



**Project Area View**

# Locally Preferred Alternative: Stacked Transit / Highway Bridge Concept



**NOTE: Number of add/drop lanes to be determined.**

# Light Rail Alignment Vancouver

## Clark College MOS Alignment Options

- == Washington-Broadway Couplet
- == Two-way Washington
- == Two-way on McLoughlin Blvd
- == Two-way on 16th Street





# Light Rail Alignment

## Portland





# **Upcoming Decisions**

# Key Issues to be Resolved for Locally Preferred Alternative

- Number of add/drop lanes.
- Bridge design and aesthetics.
- Funding/finance plan.
- Light rail alignments.
- Pedestrian and bicycle facilities.
- Transportation demand management.
- Highway interchange designs.

# Number of Lanes

- 2002 Final Strategic Plan recommended 3 through lanes (up to 10 lanes maximum).
- Draft EIS analysis supports 12 lanes at crossing.
- Boards and councils requested more detailed evaluation:
  - Valid travel demand data? (Expert Panel)
  - Can tolling or other TDM strategies further reduce demand?
  - Can increasing transit service further reduce demand?
  - Impact on land use?
  - Impact on greenhouse gases? (Expert Panel)
  - What are the operational differences?

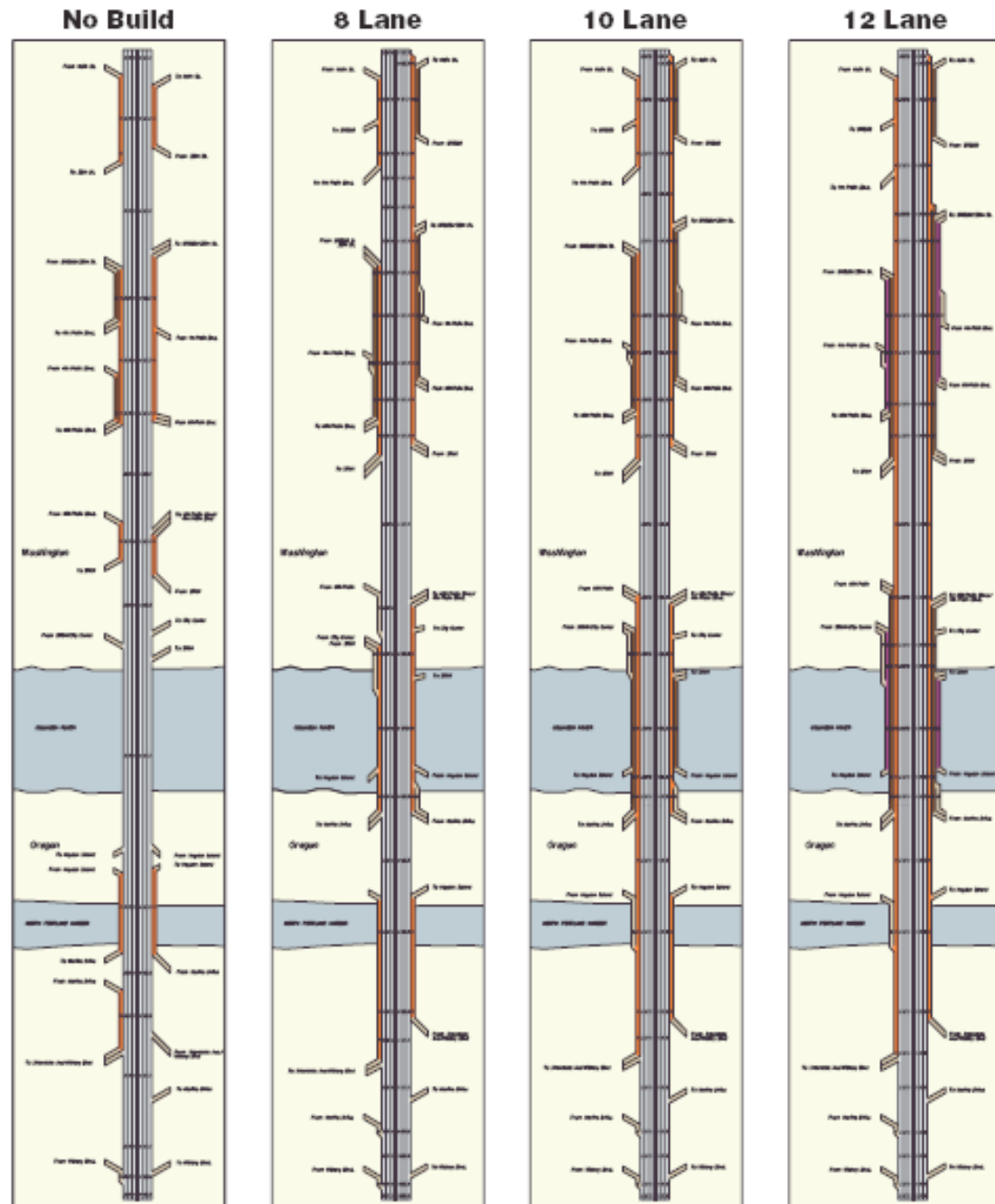
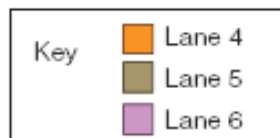
# What Are Add/Drop Lanes?

Lanes that connect on- and off-ramps to facilitate acceleration and deceleration, weaving, merging, diverging and slow moving vehicles between two or more interchanges.





# Add/Drop Lane Designs



# Green House Gas Panel Review

Panel received in advance:

- Relevant sections of Technical reports – Energy and GHG, Transportation, Land Use.
- Relevant sections of the Draft EIS.
- Representative comments on the Draft EIS.
- The GHG Review questions.



Panel met for full day workshop on Nov 20, 2008:

- Heard presentations from CRC staff.
- Asked questions of CRC staff.
- Responded to questions from City of Portland Office of Sustainable Development staff.
- Deliberated privately to respond to research questions.
- Developed draft report on findings.

# Summary of Independent Expert Review of CRC's Greenhouse Gas Analysis

- We find the Draft EIS methods and findings to be reasonable.
- We suggest methodology refinements but don't expect them to change basic conclusions (LPA has lower emissions than No Build).
- We suggest providing more explanation in the Final EIS so readers understand how and why the toll and transit help reduce traffic emissions below No Build.
- We commend the project for identifying additional ways to reduce GHG emissions, but mitigation is not needed.
- We suggest that the Draft EIS strategies for further reducing GHG emissions be considered in regional and state policy.



# Bridge Design and Aesthetics

Urban Design Advisory Group:  
Met January 23 to discuss and rank  
criteria for evaluating bridge themes.

- Sustainability
- Iconic form
- Context sensitivity
- User experience



# Aesthetics and Design of the Bridge

Bridge themes considered:

**Arch**



**Towers**



**Clean Line**

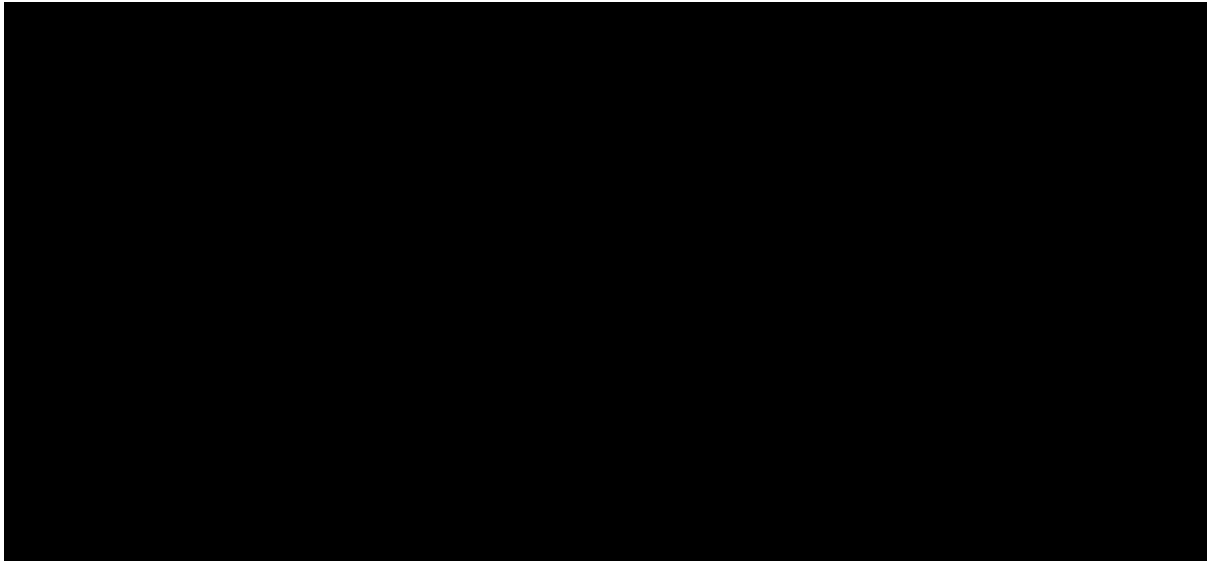


**Tensile Fabric**

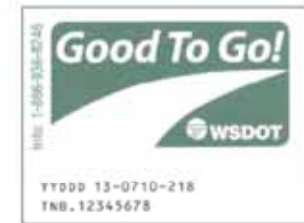


# Tolling the I-5 Bridge

Tolls Studied for Passenger Cars



Example of  
Electronic Tolling



No decisions have been made about toll rate or policy.

# Preliminary Cost Estimate

\$3.1 – 4.2 billion  
(year of expenditure dollars)\*

## Cost Breakdown by Component

### ▪Total I-5 Highway Related Costs

Replacement bridge	\$2.67 to \$3.09 billion
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### ▪High Capacity Transit

Light rail	\$0.53 to \$1.17 billion
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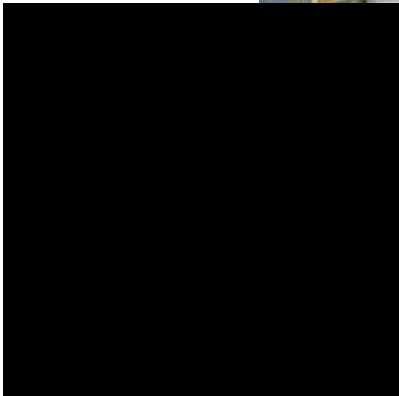
\*Year of expenditure assumes construction would take place between 2010 and 2017.

# **Public Involvement and Next Steps**

# Public Involvement

Project staff have engaged over 17,000 people at nearly 600 events since October 2005.

- Advisory groups
  - Community & environmental justice
  - Freight
  - Marine Drive interchange design
  - Pedestrian & bicycle
  - Urban design
  - Vancouver working group
- Open houses
- Neighborhood, business and community group presentations
- Fairs and festivals
- Web site & monthly emails
- Task Force (2005 to 2008)



# Project Sponsors Council

## Washington members

- City of Vancouver: Mayor Royce Pollard
- SW Wash. Regional Transportation Council: Commissioner Steve Stuart
- C-TRAN: Councilmember Tim Leavitt
- WSDOT: Secretary Paula Hammond
- Citizen Co-Chair: Hal Dengerink

## Oregon members

- City of Portland: Mayor Sam Adams
- Metro: Councilor David Bragdon
- TriMet: General Manager Fred Hansen
- ODOT: Director Matt Garrett
- Citizen Co-Chair: Henry Hewitt



**Council's role:** To advise the two transportation departments and transit agencies on:

- Completion of EIS
- Project design
- Timelines
- Development of sustainable construction methods
- Ensuring compliance with greenhouse gas reduction goals
- Finance plan

# Project Sponsors Council

## Upcoming Meetings

### **Future topics:**

- Bridge type and aesthetics.
- Pedestrian & bicycle advisory group recommendations.
- Sustainability plan.
- Transportation demand management strategies.





# Project Schedule

- Refinement of Locally Preferred Alternative: **2009-2010**
- Release Final EIS: **Early 2010**
- Federal Record of Decision: **Mid 2010**
- Construction starts: **2012**

# Questions?

For more information on the Columbia River Crossing project, please contact:

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**Washington State  
Department of Transportation**